

Appl. No.: 10/651,137  
Reply to Office Action of: July 6, 2004

### Remarks

Claims 1-16 are pending in this application. Claims 1-16 stand rejected. the following remarks are addressed to the referenced paragraphs of the Office Action dated July 6, 2004.

#### Paragraph 1-3 Claim Rejection 35 U.S.C. § 103(a)

Claims 1, 3-12, and 14-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bowen, et al., (U.S. Patent No. 5,039,456) in view of Kumar, et al., (U.S. Patent No. 6,611,648B2). The Office Action acknowledges that Bowen et al. do not disclose that the optical fiber is a multi-component glass core with cladding or a multi-core glass fiber with cladding. The Office Action argues, however, that Kumar et al. disclose a multi-core glass fiber with cladding (col. 8, lines 55-58), and that it would have been obvious to substitute the fiber of Kumar et al. into the short-circuit plug assembly of Bowen et al., because it would reduce cross-talk. Applicants respectfully disagree. There is no suggestion that the short-circuit circuit plug of Bowen et al. has a problem of excess cross-talk. Moreover, as clearly disclosed by Kumar et al. cross-talk is reduced not by multi-core glass fiber, but by providing different mean propagation constants. Applicants respectfully contend that neither the references themselves, nor the state of the art provides a motivation to make the modification suggested in the Office Action. To the contrary, the proposed modification appears to be a mere combination of independent features motivated by the present application.

The Office Action further argues that the use of a multi-core fiber deals only with using one type of fiber over another type, which does not change or affect the optical short-circuit plug assembly. Again, applicants respectfully disagree. The use of multi-component glass cores with cladding or multi-core glass fibers with cladding allows the fiber to be formed in an arc having a

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small bend radius (less than 5 mm or less than 3 mm) without unacceptable signal damping (i.e., the signal damping is less than 4 dB).

Independent claims 1 and 11 include the feature of the optical fiber portion comprising a multi-component glass core with cladding or a multi-core glass fiber with cladding. Accordingly applicants respectfully contend that they are allowable for the reasons provided above.

Claims 2-10 depend from claim 1 and claims 12-16 depend from claim 11. Accordingly applicants respectfully contend that they are allowable for the reasons provided above.

Claims 2 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bowen, et al., (U.S. Patent No. 5,039,456) and Kumar, et al., (U.S. Patent No. 6,611,648B2) in view of Cheng (U.S. Patent No. 6,634,798). Applicants respectfully disagree. Cheng is directed to a duct cap with a conical indent so that light can be observed at an angle from the axis of the duct cap. While Cheng discloses that an engaging portion (74) of the prior art dust cap is detachably clamped by the optical fiber socket (8) (col. 1, lines 29-35), Cheng does not disclose or suggest a second securing. With respect to the preferred embodiment, Cheng is silent as to the securing of the dust cap. The Office Action suggests that the flange (12) is a securing feature, but applicants respectfully suggest that this is neither disclosed nor suggested by Cheng. Accordingly, applicants respectfully contend that claims 2 and 13 are also allowable for the further reason that the cited references fail to disclose or suggest an optical short-circuit insert having first and second securing.

With respect to claims 3-6 and 8-10, the Office Action argues that they merely recite different sizes of components in the optical short-circuit plug assembly. Claims 3-6 and 8-10, as amended clearly recite that the center distance of the ends of the optical fiber or the bend radius of the optical fiber is maintained at an advantages size while providing signal damping of less

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than 4 dB. The combination of advantageous size and low damping is not disclosed or suggested by the cited references.

**Newly Added Claims**

Claims 17 and 18 are added to precisely claim an exemplary embodiment of the present invention. No new matter has been added.

**Conclusion**

For all the foregoing reasons and in view of the forgoing amendments, Applicants respectfully contend that the application is now in condition for allowance. Accordingly, Applicants respectfully request entry of the foregoing amendments, allowance of claims 1-18 and issuance of Letters Patent for the subject invention. Please charge any additional requisite fees relating to this amendment and response to Deposit Account No. 50-1581.

Respectfully submitted,



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